

Claims:

1. Silanised, structurally modified, pyrogenically produced silicas,
characterised by groups fixed to the surface, wherein
5 the groups are alkylsilyl ($\text{SiC}_n\text{H}_{2n+1}$, with $n=2 - 18$).
2. Silanised, structurally modified, pyrogenically produced silicas according to claim 1,
characterised in that
the pyrogenically produced silicas have been treated
10 with the compound $(\text{CH}_3\text{O})_3\text{SiC}_{16}\text{H}_{33}$
(hexadecyltrimethoxysilane).
3. Silanised, structurally modified, pyrogenically produced silicas according to claim 1,
characterised in that
15 the pyrogenically produced silicas have been treated
with the compound $(\text{CH}_3\text{O})_3\text{SiC}_8\text{H}_{17}$ (octyltrimethoxysilane).
4. Process for the production of the silanised,
structurally modified, pyrogenically produced silicas
according to claims 1 to 3,
20 characterised in that
the pyrogenically produced silicas are placed in a
mixer, the silicas are sprayed, optionally first with
water and then with the compound from the group
 $(\text{RO})_3\text{SiC}_n\text{H}_{2n+1}$ while mixing intensively, mixed for a
25 further 15 to 30 minutes and then tempered at a
temperature of 100 to 160°C for a period of 1 to
3 hours, structurally modified and/or optionally post-
ground.
5. Process for the production of the silanised,
30 structurally modified, pyrogenically produced silicas
according to claim 4,
characterised in that

an additional tempering is allowed to follow the structural modification and/or post-grinding.

6. Use of the silanised, structurally modified, pyrogenically produced silicas to improve the scratch resistance of lacquers.
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